

children the author gives the result of his investigations in 1573 cases. Of this number 315, or about 18 per cent., were found to have a sufficient degree of impairment of hearing to make a professional examination advisable, although in the majority of them the impairment had not been noticed, either by the patients themselves or by the teachers. In 153 cases the impairment of hearing was directly referable to the presence of adenoids, and in 12 additional cases it was referable to the consecutive changes induced by adenoids which had spontaneously resolved. The number of cases in which adenoid vegetations could be regarded as the causative factor in the impairment of hearing in all the cases considered amounted therefore to about 52 per cent., and the author lays stress upon the importance of a preliminary examination of all school children, both objectively and by hearing tests, at their entrance upon school life, as well as at later stated intervals, and gives the Bezold estimate of 2 metres, for the whispered voice, as the lowest acceptable standard.

On Some Uses of Peroxide of Hydrogen in Diseases of the Ear, Nose, and Throat.—LAMB (*Folia Therapeutica*), October, 1907. In subacute and chronic suppuration of the middle ear peroxide of hydrogen is a useful application, acting, in the opinion of the author, not only as a disinfectant and deodorizer, but also, to some extent, as an astringent; furthermore its active effervescence, in contact with blood or pus, exercises a mechanical action which helps in the breaking up of masses of septic material and the detachment of epidermal scales, cleaning a septic ear better than any preparation with which the author is acquainted, and this without signs of irritation when used in the ten-volume strength of a pure preparation. When discharge from the ear is profuse the discharge should first be washed away by syringing with warm, boiled water, and the ear then filled with a cold solution of the peroxide. At the conclusion of effervescence the ear should again be syringed and dried, and appropriate applications made. In mastoid operations the author has found the peroxide of value in cleansing foul cavities and also in checking the profuse oozing from small vessels, the mopping of the wound being done with small strips of sterilized lint soaked in the peroxide. This solution has also been found to be serviceable in the loosening of the gauze packing in post-operative dressings, as, for instance, in the first dressing after a radical operation.

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF

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Tuberculosis of Alimentary Origin.—A. CALMETTE and C. GUERIN (*Ann. de l'inst. Past.*, 1907, xx, 353) infected four cows with tuberculosis by introducing virulent bovine bacilli into the second and third

stomachs by means of a stomach tube. All of the subjects acquired pulmonary tuberculosis without the development of any lesions in the alimentary tract. Calmette and Guérin believe that whereas tubercle bacilli are retained in the mesenteric glands of young animals often for long periods, with ultimate healing, and since this defence is less efficient in the case of adult animals, the so-called primary pulmonary tuberculosis of the adult is most often of intestinal origin. In a later paper (*ibid.*, No. 8, p. 609), in which the literature of the subject is extensively reviewed, Calmette and Guérin announce their conclusion, drawn from their studies and experiments, that the vast majority of cases of pulmonary tuberculosis are due to bacilli introduced primarily into the alimentary tract, and that single intestinal infections produce a mild form of the disease, during the course of which the animal reacts to tuberculin for a period of one or two months, and then frequently recovers.

According to WEBER (*Deut. med. Woch.*, December 6, 1906) infection of the human subject with bovine bacilli is of vastly less importance than that due to those of human origin. It produces only intestinal and mesenteric lesions which point to the food as the vehicle of the exciting cause; these forms of the disease are much less likely to be transmitted from one victim to another. But inasmuch as bovine infection of the human subject is a real danger, all proper precautions should be taken to prevent its occurrence through foods and notably milk.

From a study of 4000 cases of pulmonary tuberculosis, including 700 which came to autopsy, N. RAW (*Lancet*, March 2, 1907) divides tuberculous infections into two groups: (1) Those due to bacilli of the human type. (2) Those due to bacilli of the bovine type. Under Group 1 are included phthisis pulmonalis, secondary ulceration of the intestines, and tubercular laryngitis; under Group 2 are included acute miliary tuberculosis, primary intestinal and mesenteric disease (tabes mesenterica, tuberculous peritonitis, tuberculosis of the pelvic organs), tuberculous lymphatic glands, tuberculous joints and bones, lupus, tuberculous meningitis, and tuberculous ulceration of the cornea.

In the Children's Hospital, Leipzig, H. BRUNING (*Abst. Hyg. Rund.*, November 15, 1906, p. 1257) found evidences of tuberculous lesions in 44 of 400 cases which came to autopsy, that is to say, in 11 per cent. Of these subjects one-fourth were infants. Tuberculous bronchial glands were found in 34 (77 per cent.); the liver and mesenteric glands were found diseased in 25 (57 per cent.); the small intestine in 20 (45 per cent.); and the large intestine in 10 (23 per cent.). General miliary tuberculosis was found in 25 cases. In 8 cases there was evidence of tuberculous infection of the intestines and mesenteric glands alone, and these must be considered as primary infections. In not one of these cases had tuberculosis been diagnosticated during life and all of the victims had died of some acute infectious disease.

A. EBER (*Zeit. f. Fleisch. u. Milchhyg.*, xvi, 1906, Nr. 7, p. 218) inoculated a bovine animal with material from tuberculous human mesenteric glands, and then from this animal reinoculated another, which succumbed to acute miliary tuberculosis within a week. By passing the material through a guinea-pig first, and then inoculating a bovine animal, death resulted in fifty-one days.

L. RABINOWITSCH (*Berl. klin. Woch.*, 1906, Nr. 24, p. 284) has summed up her observations on human and bovine tuberculosis and believes that the bovine variety does cause tuberculous lesions in man, but what proportion of cases are due thereto cannot be determined.

H. VALLEE'S (*Comp.-rend. Acad. sci.*, cxlii, 1906, No. 20, p. 1101) studies incline him to the belief that in many cases of most extensive tuberculous involvement of the lungs and bronchial glands the initial lesion is in the intestine and due to tuberculous material in the food.

The same authority (*Comp.-rend. Soc. biol.*, 1906, lx, No. 19, p. 911) finds that normal-appearing mesenteric and other lymphatic glands of cattle may harbor virulent tubercle bacilli after infection from any source. We cannot conclude, therefore, that any of the lymphatic glands of a tuberculous animal are free from bacilli; hence, the importance of rejecting meat from diseased cattle.

Raw versus Sterilized Milk.—BRUNING (*Zeit. f. Tiermed.*, 1907, x) has carried out some experiments which help to demonstrate how complex is the question of the comparative value of raw and sterilized milk in infant feeding. A litter of newborn animals was divided, and part were fed with raw and part with boiled milk of another species; the latter fared the better. On the other hand, animals fed on raw milk of their own species did better than those that received it cooked. BOHME (*Deut. med. Woch.*, October 25, 1906) made comparative tests with milk treated with hydrogen peroxide and perhydrazide and sterilized milk. The former agrees well with infants more than three months old; but with those younger than that sterilized milk gave the better results. It is to be said, however, that the number of infants under observation was far too small to warrant much generalization.

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